

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Michael Cameron, Reg.No. 50298 on April 21,2009.

The application has been amended as follows:

IN THE CLAIMS:

1.- 73. (Canceled)

74. (Currently Amended) A computer program embodied on a computer readable medium for controlling a communication rate for the transmission of information between a first mobile terminal and a second mobile terminal via a core network in a wireless telecommunication system, each mobile terminal accessing the wireless telecommunication system via a respective access node, comprising:

a first code segment in a first access node for determining a first maximum information transmission rate along a first air interface between ~~[[a]]~~ the first access node and the first mobile terminal, wherein the first maximum information rate is dependent upon a Coder-Decoder used by the first mobile terminal and information transmitted between first mobile terminal and the first access node;

a second code segment in a second access node in communication across the core network with the first code segment in the first access node ~~for determining a first maximum information transmission rate~~ for determining a second maximum information transmission rate along a second air interface between ~~[[a]]~~ the second access node and the second mobile terminal, wherein the access nodes are adapted to monitor and control air interface resources and wherein the second maximum information rate is dependent upon a Coder-Decoder used by the second mobile terminal and information transmitted between the second mobile terminal and the second access node;

third code ~~segment~~ segments in the first access node and second access node for cooperatively selecting a lowest one of the determined first and second maximum information transmission rates; and

~~[[a]]~~ fourth code ~~segment~~ segments in the first access node and second access node for cooperatively authorizing or establishing a communication rate no greater than the selected lowest rate.

75. (Previously Presented) The computer program of claim 74, adapted to communicate the plurality of maximum information transmission rates across a core network as messages within 1.366.2 Type 3 cells of an ATM AAL2 protocol.

76. (Previously Presented) The computer program of claim 74, adapted to communicate the plurality of maximum information transmission rates across a core network as messages within RTP packets of an IP protocol.

77. (Previously Presented) A wireless telecommunications system, comprising:

at least one access network connected to a core network;

a first mobile terminal and a second mobile terminal in communication with each other across the core network via the at least one access network;

a first telecommunication node and a second telecommunication node adapted to set information transmission rates to and from the first and second mobile terminals; and

a first air interface and a second air interface comprising, respectively, the first and second telecommunication nodes, wherein the first and second interfaces are adapted to control air interface resources and monitor the availability of the resources; the at least first and second mobile terminals communicating with the at least one access network across the first and second air interfaces;

wherein the first and second telecommunications nodes respectively are each adapted to signal to a remote node the maximum information transmission rate supportable by the first and the second air interfaces, the remote node adapted to compare the maximum information transmission rates that can be supported by the first and second interfaces, wherein each maximum information transmission rate is dependent upon a Coder-Decoder used by each mobile terminal and information transmitted between each mobile terminal and each telecommunications node.

78. – 80. (Canceled)

81. (Currently Amended) A method for use in a telecommunications system having a core network and a plurality of access nodes, said method for controlling a communication rate for transmission of information between mobile terminals in [[a]] said wireless telecommunication system ~~having a core network and a plurality of access nodes in communication with the core network~~, comprising the steps of:

determining, by one of the plurality of access nodes, a maximum information transmission rate along each air interface established between ~~an access node~~ the one of the plurality of access nodes, and a respective mobile terminal, wherein each maximum information transmission rate is dependent upon a Coder-Decoder used by the respective mobile terminal and information transmitted between the respective mobile terminal and the ~~access node~~ one of the plurality of access nodes;

selecting, by one of the plurality of access nodes and another of the plurality of access nodes, the lowest one of the plurality of maximum information transmission rates, and

authorizing, by one of the plurality of access nodes and another of the plurality of access nodes, a communication rate no greater than the selected lowest rate.

82. (Previously Presented) The method of claim 81, wherein the communication rate is dynamically authorized during a communication session including an access node and a respective mobile terminal.

83. (Previously Presented) The method of claim 82, wherein the communication rate is authorized at the set up of the communication session.

84. (Previously Presented) The method of claim 82, wherein the communication rate is authorized prior to the set up of the communication session.

85. (Previously Presented) The method of claim 81, further including the step of communicating the plurality of maximum information transmission rates across the core network as messages within 1.366.2 Type 3 cells of an ATM AAL2 protocol.

86. (Previously Presented) The method of claim 81, further including the step of communicating the plurality of maximum information transmission rates across the core network as messages within RTP packets of an IP protocol.

87. (Currently Amended) A method for controlling the rate of information transmission between first and second endpoints that communicate with each other via access networks separated by a core network, information transmission rates between the first and second endpoints and a respective air interface with an access network being respectively set by first and second telecommunication nodes, wherein the first and second telecommunication nodes are adapted to maximum information transmission rate respectively across the first and the second air interfaces, the method including the steps of:

signaling by the first and second telecommunications nodes respectively to a remote node the maximum information transmission rate supportable by the first and the second air interfaces;

comparing the maximum information transmission rates supportable by the first and second air interfaces; and

setting the information transmission rate of each endpoint to a rate not exceeding that of the lower of the maximum information air interface transmission rates[.],
wherein each maximum information transmission rates is dependent upon a Coder-Decoder used by each endpoint and information transmitted between each endpoint and by the first and second telecommunications nodes respectively.

88. (Previously Presented) The method of claim 87, wherein the remote node signaled by each of the first and second telecommunications nodes is the other of the first and second telecommunications nodes.

89. (Previously Presented) The method of claim 87, wherein the comparing of the maximum information transmission rates supportable by the first and second air interfaces is performed in each of the first and second telecommunications nodes.

90. (Previously Presented) The method of claim 87, wherein the setting of the information transmission rate of each endpoint to not exceed that of the lower of the maximum information transmission rates further comprises setting the rate of operation of a codec to the lower of the maximum information transmission rates.

91. (Currently Amended) A method for controlling the transmission rate for a communication session between at least two endpoints via respective air interfaces to access networks in communication with a core network, the method comprising the steps of:

signaling by a first telecommunication node operable to monitor a first air interface, the first telecommunication node signaling to communicate a first maximum air interface transmission rate to a remote node, the first maximum air interface

transmission rate being the current maximum supportable rate for communication by a first endpoint with its respective access network via the first air interface;

comparing a second maximum air interface transmission rate with the first maximum air interface transmission rate, the second maximum air interface transmission rate being the current maximum supportable rate for communication by a second endpoint with its respective access network via a second air interface; and

setting the communication session transmission rate at a rate not greater than the lowest of the first maximum air interface transmission rate and the second maximum air interface transmission rate^{[[.]]}, wherein each maximum information transmission rates is dependent upon a Coder-Decoder used by each endpoint and information transmitted between each endpoint and by the first and second telecommunications nodes respectively.

92. (Previously Presented) The method of claim 91, further comprising signaling by a second telecommunication node operable to monitor the second air interface, the second telecommunication node signaling to communicate the second maximum air interface transmission rate to the remote node, wherein the comparing step is performed in the remote node, and wherein the remote node is not the second telecommunication node.

93. (Previously Presented) The method of claim 91, wherein the remote node is a second telecommunication node, and wherein the comparing step is performed in the second telecommunication node.

94. (Previously Presented) The method of claim 91, further comprising signaling by a second telecommunication node operable to monitor the second air interface, the second telecommunication node signaling to communicate the second maximum air interface transmission rate to a second remote node.

95. (Previously Presented) The method of claim 94, wherein the remote node is the second telecommunication node and wherein the second remote node is the first telecommunication node.

96. (Previously Presented) The method of claim 95, wherein setting the communication session transmission rate comprises signaling by the first telecommunication node and the second telecommunication node to, respectively, a first endpoint and a second endpoint to control their respective encoding rates.

Allowable Subject Matter

Claims 74-77, 81-96 are allowed.

The following is an examiner's statement of reasons for allowance:

The provision for -- *controlling a communication rate for the transmission of information between a first mobile terminal and a second mobile terminal via a core network in a wireless telecommunication system, each mobile terminal accessing the wireless telecommunication system via a respective access node, comprising:*

a first code segment in a first access node for determining a first maximum information transmission rate along a first air interface between the first access node and the first mobile terminal, wherein the first maximum information rate is dependent upon a Coder-Decoder used by the first mobile terminal and information transmitted between first mobile terminal and the first access node;

a second code segment in a second access node in communication across the core network with the first code segment in the first access node for determining a second maximum information transmission rate along a second air interface between the second access node and the second mobile terminal, wherein the access nodes are adapted to monitor and control air interface resources and wherein the second maximum information rate is dependent upon a Coder-Decoder used by the second mobile terminal and information transmitted between the second mobile terminal and the second access node;

third code segments in the first access node and second access node for cooperatively selecting a lowest one of the determined first and second maximum information transmission rates; and

fourth code segments in the first access node and second access node for cooperatively authorizing or establishing a communication rate no greater than the selected lowest rate

-- wherein all the features previously described are combined in one singular embodiment, is not fairly taught or suggested by the prior art of record.

As stated by the Applicant Specification Page 4 Lines 30-33, the core network transport protocols of prior art systems do not currently enable the comparison of the current maximum transmission rate supported by the air interfaces between the base stations and the mobile stations.

The Examiner finds particular novelty in the signaling between a pair of radio network controllers (RNC) and rate establishment procedures as described in the Applicant Specification (page 9 Lines 5-20, Page 10 Lines 20-30, figure 3). In the invention the maximum air interface transmission rate is dependent on the maximum transmission rate of the codec in the mobile station. A source RNCa transmits a rate control message containing the maximum air interface transmission rate. A destination RNCb receives the rate control message from the source RNCa. Upon comparing the maximum air interface rates, RNCb selects the lower rate of the maximum

transmission rates. The RNCs cooperatively establish the wireless connection with the selected transmission rate.

Kinrot disclosed at ATM network wherein bit rates of the encoders are controlled by a processor 29 using feedback relating to the length of the respective queue and network congestion levels. Kinrot does not disclose wherein a destination RNC receives the rate control message from the source RNC and controls the rate of operation of the Codec in the destination mobile station to not exceed the lower of the maximum transmission rates wherein the maximum air interface transmission rate is dependent on the maximum transmission rate of the codec in the mobile stations.

Nishio disclosed sending hand-over start information from the first base station to an ATM node accommodating the first base station when the mobile station moves to a second radio zone accommodated in a second base station, the hand-over start information concerning the second base station and an ATM virtual channel established for the mobile station. Nishio does not disclose wherein a destination RNC receives the rate control message from the source RNC and controls the rate of operation of the Codec in the destination mobile station to not exceed the lower of the maximum transmission rates wherein the maximum air interface transmission rate is dependent on the maximum transmission rate of the codec in the mobile stations.

Bruckenhimer disclosed a generic interface for the transference of arbitrary and variable length packets. Bruckenhimer does not disclose wherein a destination RNC receives the rate control message from the source RNC and controls the rate of

operation of the Codec in the destination mobile station to not exceed the lower of the maximum transmission rates wherein the maximum air interface transmission rate is dependent on the maximum transmission rate of the codec in the mobile stations.

Rasanen disclosed wherein during exchange of data compression parameters the IWF delays the set-up of the error correction link protocol of the faster leg and/or the data compression negotiation while keeping the procedure in progress on the leg. This takes place for example by delaying transmission of responses to messages arriving from the faster leg as long as it is necessary or possible. Rasanen does not disclose wherein a destination RNC receives the rate control message from the source RNC and controls the rate of operation of the Codec in the destination mobile station to not exceed the lower of the maximum transmission rates wherein the maximum air interface transmission rate is dependent on the maximum transmission rate of the codec in the mobile stations.

Immonen disclosed a system which supports the quality of service in data packet transmission over the air interface and comprises a selection of predefined default radio flows having different quality of service characteristics. Immonen does not disclose wherein a destination RNC receives the rate control message from the source RNC and controls the rate of operation of the Codec in the destination mobile station to not exceed the lower of the maximum transmission rates wherein the maximum air interface transmission rate is dependent on the maximum transmission rate of the codec in the mobile stations.

Conclusion

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GREG BENGZON whose telephone number is (571)272-3944. The examiner can normally be reached on Mon. thru Fri. 8 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Vaughn can be reached on (571)272-3922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/G. B./
Examiner, Art Unit 2444

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